Multi

User's Manual

Multi-Format Color Video Monitors

- DBM-150

For Your Safety

Intended Use

The DBM-150 color video monitor is designed to display pictures generated from broadcast systems. Do not use this monitor for other purposes.

Read Instructions

Before operating this color display monitor, DBM-150, users should read and understand this User Manual thoroughly. Retain this manual for future reference.

Inspect before operating

To prevent unexpected problems and to maximize the functionality of this equipment, look over the unit before operating. Do not operate this unit if defects are found.

Warning: Risk of electric shock

There are high voltage points within this product's enclosure that may cause a fire or electric shock. Do not remove cover or back! Refer servicing to qualified service personnel.

Warning: Liquids and Chemicals

To reduce the risk of a fire or electric shock do not expose this equipment to rain or moisture and keep this equipment away from all liquids. Never allow liquids of any kind, chemicals, and other objects to spill through cabinet slots. If spillage occurs unplug the unit from the electric outlet and contact your Dealer or Customer Service Center. Do not place any liquid containers on top of the equipment.

Modifications

Never disassemble or make any unauthorized modifications to this unit.
For service concerns please contact your authorized reseller or Customer Service Center.

Disposal

This product contains lead in some components. Disposal of these materials may be regulated in your community due to environmental considerations. For disposal or recycling information please contact your local authorities, or Customer Service Center.

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Precautions

To preserve optimal performance of this equipment

Magnetic Cautions

・Do not place the unit near any objects which generate magnetism. Magnetism will cause picture bounce, oscillations or picture discoloration.

・The picture may become fuzzy or the colors may not reproduce correctly due to the Earth's magnetism. This depends on the direction that the unit is installed. This is not an equipment failure. In such a case, simply turn off and on or push the DEGAUSS button to resolve the issue.

※ For details about the DEGAUSS button, see "DEGAUSS button" on page 8.

Picture Tube Cautions

・For dirt or stains, wipe the surface of the panel gently with a clean soft cloth that has been lightly dampened with a well-diluted soft detergent and wrung out thoroughly, then dry it off with a dry cloth. Avoid excessive moisture. Do not spray detergent or other cleaners directly on the screen.

・The surface of the CRT is easily scratched: therefore, do not rub or touch the surface of the CRT.

・To prevent damage to the surface of the screen do not use strong solvents such as aerosol cleaners, alkaline detergents, alcohols, benzene, or thinners.

Cleaning Cautions

・Turn off and unplug the unit before cleaning.

・When dusting or polishing the cabinet, use a clean soft cloth dampened with a water-diluted mild detergent (water: soap = 6:1) and wrung out thoroughly, then wipe dry with a soft clean cloth. Do not spray detergent or other cleaners directly on unit.

・ Never use strong solvents such as thinner, benzene, and other petroleum-based cleaners.

Features

Image

Resolution
Fine Dot Pitch Shadow Mask provides a center resolution of more than 800 Lines.

Comb Filter
Comb filter removes cross color interference (rainbow phenomenon at letters) and color noise (color spread) to display crisp and clear images.

Beam current feedback Circuit
The beam current feedback Circuit maintains a constant color temperature over long periods of time.

2 Color Systems
This unit automatically adjusts to respond appropriately to NTSC and PAL Color Systems.

Input

Analog RGB/Component Input
You can input analog RGB, component signals(Y, Pb, Pr). Pushing the COMPONENT button at the front panel, then you can select RGB/COMPONENT signal on the OSD menu.

Y/C Input
You can input brightness signal(Y) and color signal(C) separately to reduce color spreads or blinking so that you can get clearer images.

External Synchronization Signal Input-terminal
You can input synchronization signals from external synchronization signal generator. The external synchronization signal input can be selected by pushing the EXIT button when inputting RGB/COMPONENT.

Auto Termination (⏦)
The Input-Terminal on the rear panel is terminated automatically if it is not connected to an output-terminal. When it is connected to an output-terminal via a cable, the internal auto termination is cancelled automatically and the signals inputted at the input-terminal are looped through to the output-terminal.

SDI Input
You can input SDI signals from video equipment and display these signals by selecting CVBS/SDI button on the front panel.

Functions

Under Scan Mode
This function enables you to see the whole picture by displaying signals on the off-screen .
※ Red, green, and blue lines are displayed on the top of the screen when in Under Scan mode. These lines are generated by the picture tube as part of its normal operation and are not part of the actual picture.

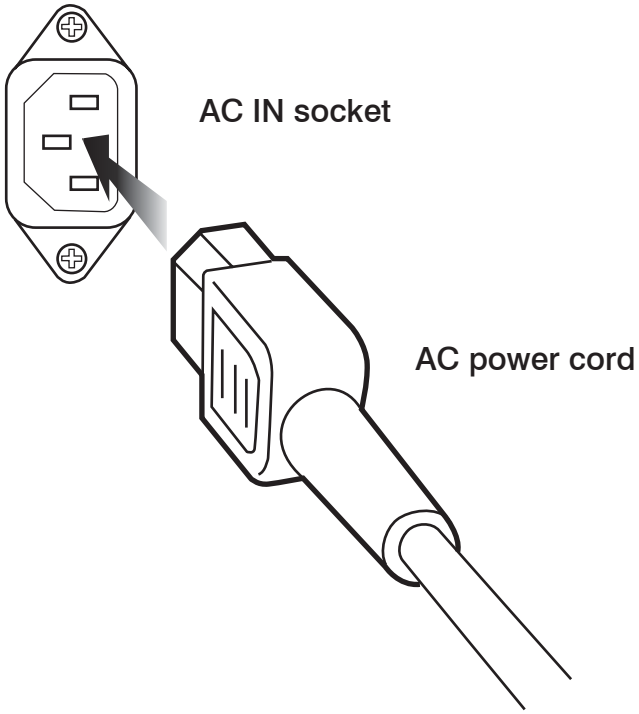
Auto/Manual Degauss
The picture tube is degaussed automatically when powered on. The manual degauss is enabled by pushing the DEGAUSS button.

On-Screen Menu
On-screen menus enable users to make the most desirable adjustment and settings for the systems to be connected.

Connection

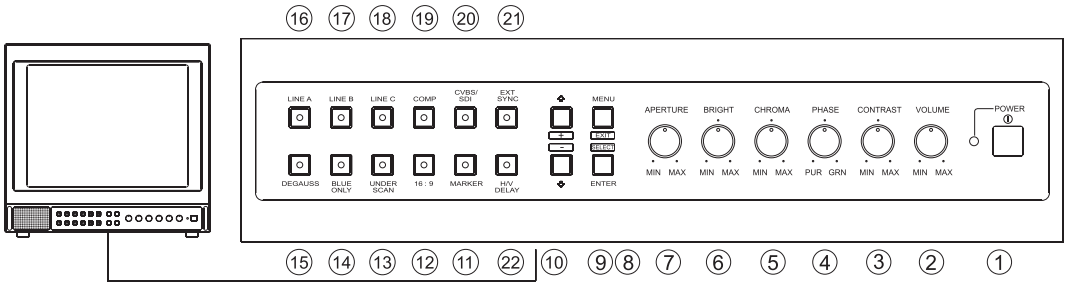
Power cord connection

When you connect the power cord
Connect the supplied AC power cord to the AC IN socket at the rear panel.



Location and Function of Parts

Front Panel



1 Power Switch and LED

LED lights up when the power is turned on by pressing the power switch. When the switch is pressed once again, the power is turned off and the LED is turned off.

2 Volume VR

This is to control the volume level.

3 Contrast VR

This is to adjust the contrast ratio.

4 Phase VR

This is to control the phase value. Turning to the right makes green color tone and turning to the left makes red color tone.

5 Chroma VR

This is to adjust the saturation. Turning to the right makes strong chroma and turning to the left makes light chroma.

※ Chroma adjustment does not work with RGB signals.

6 Bright VR

This is to control the degree of brightness.

7 Aperture VR

This is to adjust the picture sharpness. Turning to the right makes it clear and turning to the left makes it soft.

8 Menu/Exit Button

This is to display the menus and then to go back to the normal picture.

9 Enter/Select button
This is to execute the items selected and adjust settings.

10 ↑/+ (move up/adjust) button
↓/- (move down/adjust) button
This is to move the cursor and to adjust the setting and adjustment values.

11 Marker
When this button is pushed in the 4:3 marker is displayed in the 16:9 screen.

12 16:9 button and LED
This is to set an aspect ratio of 4:3 or 16:9.

13 Underscan button and LED
When this button is pushed in, the picture is underscanned by 7%, and four ends of the raster are displayed on the screen.

14 Blue Only button and LED
When this button is pushed in, red and green signals are cut, and only the blue signal is displayed. It makes it easy to adjust chroma and phase, and to check VCR noise.

15 Degauss button and LED
Press this button once to degauss manually. To degauss again, wait at least 10 minutes.

16 Line A button and LED
The signals of Line A or SDI-A input can be viewed according to the CVBS/SDI button (20) setting.

17 Line B button and LED
The signals of line B or SDI-B input can be viewed according to the CVBS/SDI button (20) setting.

18 Line C button and LED
The signals of line C input (S-VIDEO) can be viewed.

19 COMPONENT button and LED
The signals of component input can be viewed.

20 CVBS/SDI
With LED ON the SDI signal is displayed, and with LED OFF the CVBS signal is displayed.

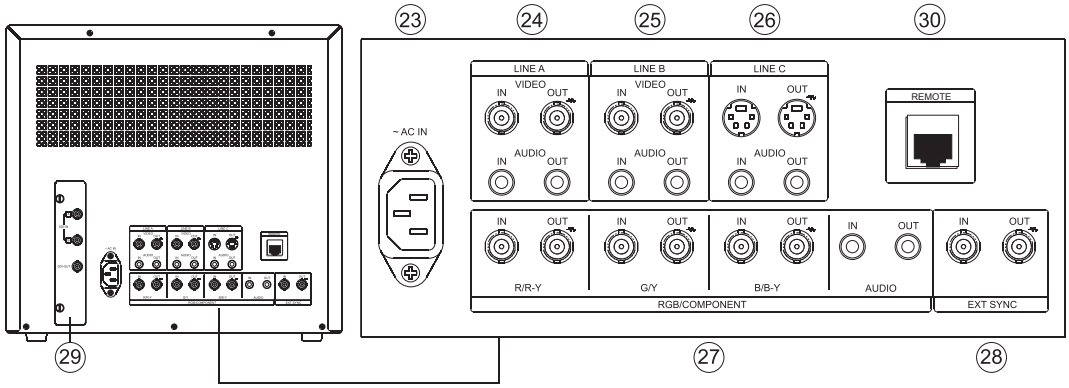
21 EXT SYNC button and LED

Press this button when external sync signals are synchronized from the EXT SYNC input terminals. The EXT SYNC button is operational with a COMPONENT/RGB input.

22 H/V DELAY

You can verify the part of sync status by delaying the horizontal and vertical sync.

Rear Panel



23 AC IN power socket

Connect the supplied AC power cord

24 LINE A IN/OUT.

These connectors are for composite video signals and audio signal input and for Loop Through for each. This can be viewed by pushing the LINE A button on the front panel.

VIDEO IN/OUT (BNC type)
These connectors are for composite video input and output. Connect the input and output terminals of the composite image of VTR, video cameras, or other monitors.

AUDIO IN/OUT (Pin Jack)
These connectors are for audio signal input and output. Connect the audio input and output terminals of VTR or other equipment.

25 LINE B IN/OUT

These connectors are for composite video signals and audio signal input and for Loop Through for each. This can be viewed by pushing the LINE B button on the front panel.

VIDEO IN/OUT (BNC type)
These connectors are for composite video input and output. Connect the input and output terminals of the composite image of VTR, video cameras, or other monitors.

AUDIO IN/OUT (Pin Jack)
These connectors are for audio signal input and output. Connect the audio input and output terminals of VTR or other equipment.

26 LINE C IN/OUT

These connectors are for Y/C separate signals and audio signal LINE input and for Loop Through for each.

This can be viewed by pushing the LINE C button on the front panel.

Y/C IN/OUT (4Pin Mini DIN)
These connectors are for Y/C separate input and output. Connect the input and output terminals of the image of VTR, video cameras, or other monitors.

AUDIO IN/OUT (Pin Jack)
These connectors are for audio signal input and output. Connect the audio input and output terminals of VTR or other equipment.

27 RGB/COMPONENT IN/OUT

These connectors are for analog RGB and components(Y, Pb, & Pr) input and for Loop Through for each.

This can be viewed by pushing the RGB/COMPONENT button on the front panel.

IN/OUT (BNC type)
These connectors are for analog RGB and components(Y, Pb, & Pr) input and output. When inputting, it is operated by sync signals included in G/Y signals.

AUDIO IN/OUT (Pin Jack)
These connectors are for audio input and output. Connect the audio input and output of VTR and other equipment.

28 EXT SYNC IN/OUT

These connectors are for external sync signal input and Loop Through for each.

This can be operated by pushing the EXT SYNC button on the front panel.

IN/OUT (BNC type)
These connectors are for external sync signal input and output. The IN terminal is for the standard input signals from the signal generator of the external sync signal. Connect the OUT terminal of this monitor with the external sync signal IN terminal of other video equipment to be operated with this monitor.

29 SDI IN/OUT

These connectors are for SDI IN/OUT.

You can select SDI A or B by selecting the CVBS/SDI Button on the front panel. The selected SDI input signal is outputted through the reclocked output connector.

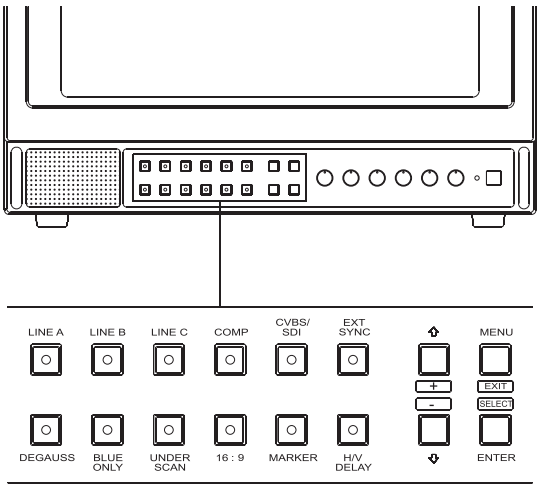
30 REMOTE

It allows the user to make necessary remote adjustments easily without touching the buttons on the front panel.

How to use the on-screen menus

Users can adjust picture, select input signals, change initial installation, and adjust other things with the on-screen menus. Users should follow the steps described below.

※ For details about the menu items, see [How to adjust on the screen menus] on page 13.

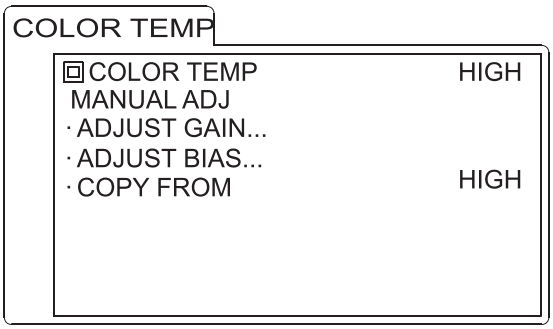


1. Press the MENU/EXIT button.
The STATUS list is displayed on the screen.

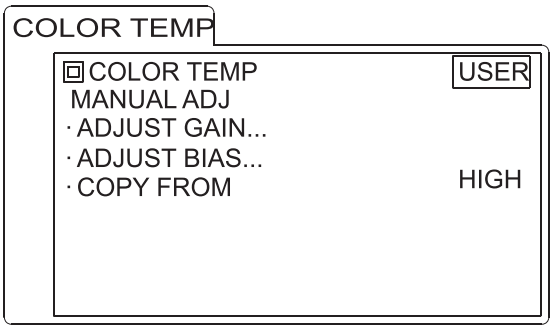
STATUS

FORMAT	NTSC 480/601
COLOR TEMP	USER
RGB/COMP SEL	---
KEY INHIBIT	OFF
SDI OPTION	INSTALLED
SOFT VERSION	H 1.04C

2. Press the ↑/+, ↓/- buttons to select the menu and press the ENTER/SELECT button.
The icon of the selected menu page displays in yellow color and a cursor moves to the selected items (middle area).



3. Press the ↑/+, ↓/- button to select the item and press the ENTER/SELECT button.
A cursor moves to the right side area of the selected item.



4. Adjust and set the selected item.
When you change the setting and adjustment values of the item:
Press the ↑/+ button to increase the setting and adjustment values.
Press the ↓/- button to decrease the setting and adjustment values.
When you press the ENTER/SELECT button, the setting is stored, then the display returns to the previous picture.

When you select the setting:
Press the ↑/+, ↓/- buttons to select the setting and press the ENTER/SELECT button.

※ Items in blue cannot be adjusted in the settings menu. Items in white cab be adjusted.

To exit the menus
Press the MENU/EXIT button.

To save the settings
The settings are saved automatically.

How to adjust the on-screen menus

Items

The screen menus are as follows:

INFORMATION STATUS
It displays the setting status. (setting and adjustment not possible)

COLOR TEMP
It sets the color temperature.

Function Control
It sets the desired function of monitor.

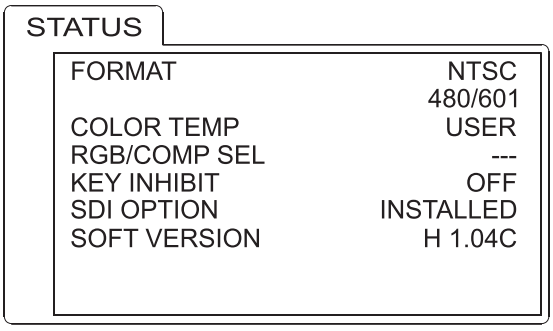
USER Adjustment
It adjusts the position and size of the screen.

REMOTE PARAELL
It sets the pin functions of the remote jack at the rear panel.

Adjustment and setting

INFORMATION STATUS
It displays the current setting.

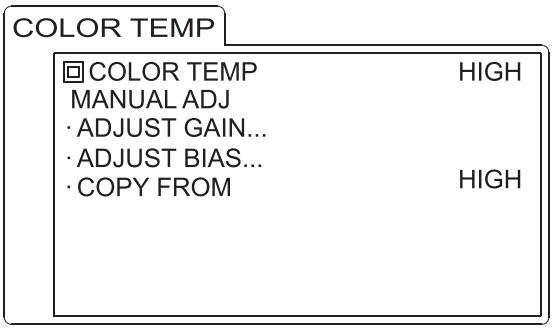
SUB MENU	SETTING
FORMAT	Displays the FORMAT(NTSC/PAL) of the input signals.
COLOR TEMP	Displays the setting of the color temperature
RGB/COMP SEL	Displays the setting(RGB/COMPONENT) with RGB or COMPONENT input.
KEY INHIBIT	Displays current setting of key inhibit function.

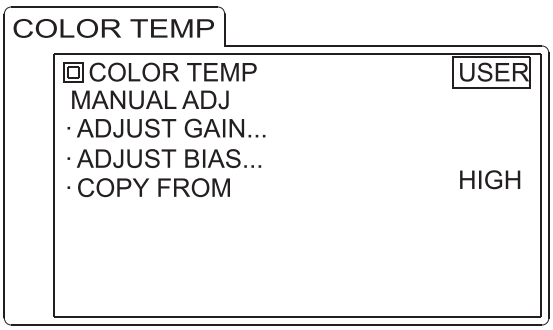


COLOR TEMP

It adjusts the white balance. To adjust color temperature, A probe is required.

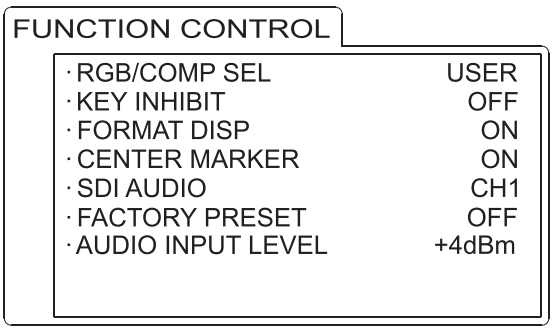
USER MENU	SETTING
COLOR TEMP	Adjusts the color temperature as [LOW], [HIGH], [USER]. Adjusts the other color temperature available in the user setting. (a probe required) ※ The USER available from 5,000K to 10,000K ※ The USER adjustment setting can be set in the COLOR TEMP menu of the USER SERVICE setting.
USER COLOR TEMP	The level of color temperature is operated when select USER adjustment setting in the COLOR TEMP menu. GAIN adjustment: Adjusts COLOR Balance (GAIN) of the user setting. BIAS adjustment: Adjusts COLOR Balance (BIAS) of the user setting. Standard COPY: Brings up LOW and HIGH parameter.





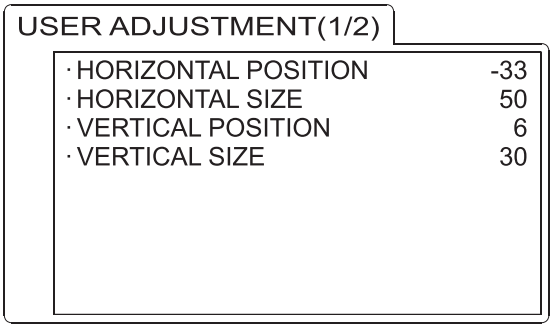
FUNCTION CONTROL

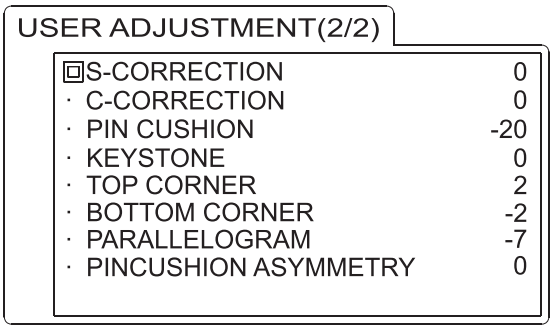
SUB MENU	SETTING
RGB/COMP SEL	sets signal RGB and component input RGB: select input signal in RGB COMP: select input signal in component
key inhibit	lock the function key and volume at the front panel on: lock off: unlock
FORMAT DISP	Sets how the input type/format is displayed on: displays permanently auto: displays 10 sec. off: input format
Center Marker	Sets the center marker on/off when marker button is selected on the front panel off: will not display center marker on: displays center marker
SDI Audio	selects SDI Audio channel to output OFF: off the SDI Audio Ch1~Ch16: Selects out SDI Audio channels
Factory Reset	Returns all settings to factory default settings
Audio input level	selects the desired Audio signal volume level -5dBm: selects Audio Volume in low +4dBm: selects Audio Volume in high ※ factory preset is +4dBm



USER Adjustment

SUB MENU	SETTING
Horizontal position	adjusts the position along the horizontal axis of the screen
Horizontal size	adjusts the horizontal size of the display
Vertical position	adjusts the position along the vertical axis of the screen
Vertical size	adjusts the vertical size of the display
S-correction	adjusts the screen's top and bottom uniformity
C-correction	adjusts the center uniformity
PIN Cushion	adjusts pincushion or barrel distortion
Keystone	adjusts trapezoid distortion
Top Corner	corrects distortion in the top corners of the screen
Bottom Corner	corrects distortion in the bottom corners of the screen
Parallelogram	adjusts parallel distortion
PIN Cushion Asymmetry	adjusts distortion along the vertical axis of the screen





SETTING FOR THE REMOTE PARALLEL

OSD	FEATURE	HIGH→LOW	LOW→HIGH
---	-	-	-
LINE A	o	LINE A	-
LINE B	o	LINE B	-
LINE C	o	LINE C	-
RGB	o	RGB	-
COMPONENT	o	COMPONENT	-
SDI 1	o	SDI A	-
SDI 2	o	SDI B	-
TALLY R	TALLY RED ON/OFF	TALLY RED ON	TALLY RED OFF
TALLY G	TALLY GREEN ON/OFF	TALLY GREEN ON	TALLY GREEN OFF
TALLY AMBER	TALLY RED, GREEN ON/OFF	TALLY AMBER ON	TALLY AMBER OFF
UNDERSCAN	UNDERSCAN ON/OFF	ON (UNDERSCAN)	OFF (OVERSCAN)
16:9	16:9 aspect ratio ON/OFF	ON	OFF
4:3	4:3 aspect ratio ON/OFF	ON	OFF
EXT SYNC	external SYNC signals enable/disable	external SYNC	internal SYNC
BLUE ONLY	BLUE ONLY ON/OFF	ON	OFF
MONO	MONO ON/OFF	ON	OFF
VOLUME	VOLUME ON/OFF	OFF	ON
MARKER	MARKER ON/OFF	ON	OFF
CENTER MARKER	CENTER MARKER ON/OFF	ON	OFF

REMOTE PARALLEL

· 1 PIN	TALLY R
· 2 PIN	LINE A
· 3 PIN	MONO
· 4 PIN	SDI 1
· 6 PIN	BLUE ONLY
· 7 PIN	TALLY G
· 8 PIN	EXT SYNC

TROUBLESHOOTING

Before contacting technical support check for these common mistakes.

▪ Green and purple picture
→ Press the COMP and RGB buttons to make sure the input signals are selected properly.

▪ The EXT SYNC button is not working.
→ Keep pressing the EXT SYNC button to light LED.

WARRANTY

1) If you have problems with this equipment please reveiw the manual first to try and self-diagonsis simple errors.

2) If you still have problems with this equipment please contact your local reseller or Customer Service Center.

3) This product is warranted (repairs and replacements) for 1 year from the date of invoice from an Authorized Reseller to the end user. During this warranty period, the repairs and replacements are serviced at no charge to the original owner, subject to the limitations listed.

① Damages, defects or failure caused by or resulting from fire, flood, or acts of God
② Damages, defects or failure caused by misuse, abuse, neglect, or improper operation of the unit.
③ Unauthorized modification (repairs or alteration) by a non-TV Logic service facility.

4) Repairs can be provided for a service charge after the warranty period. When you contact the Customer Service, let them know the following:

Model: DBM-150
Serial Number:
Trouble condition: (in detail possible)
Date of purchase: (the date of invoice)

SPECIFICATIONS

GENERAL

CRT Type: 15 inch Shadow mask tube (P22 phosphor)
Power requirement: AC 100~240V, 50/60 Hz
Power consumption: maximum 90W 1.3~0.6A
Dimensions (Width x Height x Depth):
365mm x 335mm x 387 mm (14.6 in x 13.4 in x 15.5 in)
Weight: 17.5 kg. (38.6 lbs)

INPUT SIGNAL FORMAT

COMPOSITE: NTSC/PAL
COMPONENT/SDI: 480i(59.94), 576i(50), 720p(50/60), 1080i(60/59.94) -ONLY DBM-150HD

INPUT AND OUTPUT

Input Connectors

Line A:
Video input BNC type (1)
1Vp-p ± 6dB Negative sync
Audio input Pin Jack (1)
-5dBu 47kΩ more

Line B
Video input BNC type (1)
1Vp-p ± 6dB Negative sync
Audio input Pin Jack (1)
-5dBu 47kΩ more

Line C
Y/C input Mini DIN 8-Pin (1)
Audio input Pin Jack (1)
-5dBu 47kΩ more

RGB/COMPONENT
RGB/COMPONENT input BNC (3)
RGB Input 0.7Vp-p ± 6dB
(Sync on Green 0.3Bp-p Negative sync)
COMPONENT input 0.7Vp-p ± 6dB
(In 75% Chrominance standard color bar signals)
Audio input Pin Jack (1)
-5dBu 47kΩ more

EXTERNAL SYNC INPUT
BNC type (1) 0.3 ~ 8Vp-p
Positive/negative tri-level sync signal input or negative bi-level sync signal input
SDI A,B input BNC type (2)

Output Connectors

LINE A
Video output BNC type (1)
Loop through, 75Ω auto terminating feature attached
Audio output Pin Jack (1)
Loop through

LINE B
Video output BNC type (1)
Loop through, 75Ω auto terminating feature attached
Audio output Pin Jack (1)
Loop through

LINE C
Y/C output 4Pin Mini DIN (1)
Loop through, 75Ω auto terminating feature attached
(Available when power on input only)
Audio output Pin Jack (1)
Loop through

RGB/COMPONENT
RGB/COMPONENT output BNC (3)
Loop through, 75Ω auto terminating feature attached
Audio output Pin Jack (1)
Loop through

EXTERNAL Sync BNC type
Loop through, 75Ω auto terminating feature attached

SDI Output BNC type (1)
Active through, 75Ω

INTERNAL SPEAKERS
2W (MONO)

Video SIGNALS

FREQUENCY RESPONSE
50Hz ~10MHz (0dB/-3dB)
Aperture compensation
OFF: 0Db
On: 2~ 6dB

PICTURE PERFORMANCE

NORMAL SCAN
7% overscan of CRT effective screen area

UNDERSCAN
7% underscan of CRT effective screen area

LINEARITY
H: less than 2%
V: less than 2%

COLOR TEMPERATURE
HIGH(D93), LOW(D65)
USER(Adjustable to other color temperatures 5000K ~10000K)

CONVERGENCE ERROR
Central area: less than 0.4 mm
Peripheral area: less than 0.5 mm

RASTER SIZE STABILITY
H: 1.0 %
V: 1.0 %

RESOLUTION (at screen center)
800 TV Lines

OPERATING CONDITIONS

Temperature: 0°C to 40°C (32°F ~104°F)
Humidity: less than 30 to 85 % (no condensation)
Pressure: 700 to 1060 hPa

STORAGE AND TRANSPORT CONDITIONS

Temperature: -10°C to 40°C (14°F ~104°F)
Humidity: 0 to 90 %
Pressure: 700 to 060 hPa

ACCESSORIES SUPPLIED

AC power cord (1)
User manual (1)

Design and specifications may be changed without notice,

Developed by

TVLogic

For more information please visit : **www.tvlogic.co.kr**

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